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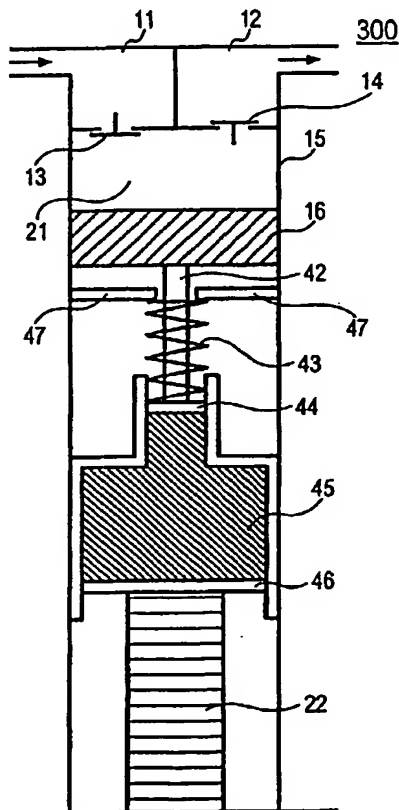
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(54) Title: **PIEZO-ELECTRIC COMPRESSOR WITH DISPLACEMENT AMPLIFIER**



(57) **Abstract:** A compressor (300) for successive suction and discharge of a compressible fluid, thereby increasing fluid pressure of the compressible fluid in a substantially closed chamber, the compressor (300) comprising: at least one piezoelectric element (22); a primary displacement member (46) coupled to the at least one piezoelectric element (22); a secondary displacement member (44) coupled to the piston (16); and a non-compressible fluid (45) disposed to fill a fixed predetermined volume between the primary displacement member (46) and the secondary displacement member (44); wherein electrical actuation of the piezoelectric element (22) is controllable to displace the primary displacement member (46) by a predetermined distance, being coupled via the non-compressible fluid (45) to displace the secondary displacement member (44) by an amplified distance based upon the fixed predetermined volume.